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| AUTHOR | Garber, Michael P.; Heet, Justin A.; Styring, William III |
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ABSTRACT

Extensive testing data from federal, state, and private sources indicate that Indiana students underperform their peers in most other states. Contrary to conventional wisdom, the shortcomings of Indiana students relative to students elsewhere are most severe among students from middle- and upper-income families. Forty percent of 3rd-graders, 52 percent of 6th graders, 44 percent of 8th graders, and 43 percent of 10th graders failed to demonstrate mastery of the Indiana Statewide Testing for Education Progress in 1999. Fifteen states and the District of Columbia have a higher percentage of students who take the SAT, yet only five states score lower than Indiana. The data are similar for the ACT. Thirty states have a higher percentage of students who take the test, but only 13 of them have lower average scores. Indiana ranks 49th in the nation on the Advanced Placement exams. The report concludes Indiana's artificial school-district boundaries have a negative impact on education decisions and perceptions in the state. The study examines the wide range of "inputs" to determine whether external factors explain the poor performance of many students. The report finds no single external factor--class size, level of teacher salary or experience, geographic location, etc.--that adequately explains school and student performance variations. The problems are inside the state's current public education system. Contains 33 references. (DFR)

# Indiana Education

# *On Shaky Ground*

Michael P. Garber
Justin A. Heet
William Styring III

*A report of the Education Policy Center*

HUDSON INSTITUTE

# KEY FINDINGS

- *Indiana's education system is on shaky ground. Extensive testing data from federal, state, and private sources indicate that Indiana students in every demographic category underperform their peers in most other states. Contrary to conventional wisdom, the shortcomings of Indiana students relative to students elsewhere are most severe among students from middle- and upper-income families. Our educational problems are not limited to poor, urban areas. Our educational problems are not someone else's problems. They require the attention of all of Indiana's citizens.*

- *In the heydey of Indiana's agrarian and industrial past, an average education was good enough. What Indiana lacked in a highly trained workforce, it made up in rich land, proximity to raw materials, and a fine transportation infrastructure. With even a sub-standard K-12 education, a person could land a job that paid decent wages. In today's knowledge economy, none of that remains true.*

- *A snapshot of the data begins to put the problem in perspective. Forty percent of our 3rd graders, 52% of our 6th graders, 44% of our 8th graders, and 43% of our 10th graders failed to demonstrate mastery of the ISTEP+ this year. The 10th grade test, also used as a Qualifying Graduation Exam, is based on 9th grade standards.*

- *Fifteen states and the District of Columbia have a higher percentage of students that take the SAT, yet only five states score lower than Indiana. On another college entrance exam, the ACT, the data is similar. Thirty states have a higher percentage of students that take the test but only 13 of them have lower average scores. We rank 49th in the nation on the Advanced Placement (AP) exams.*

- *American taxpayers invest heavily in public education, and Indiana taxpayers invest at higher rates than most Americans. Hoosiers devote about $7.7 billion per school year to education at the K-12 level, and this commitment has been rising at well above the U.S. average rate of increase for a long time.*

- *Using the most basic calculation, the people of Indiana spend about* **$83,000 per graduate** *on the state's K-12 school system. The basic calculation is largely meaningless, however, since it does not include the investment lost on school dropouts and on graduates who fail to perform at expected levels. When the lost investment in dropouts is considered, the cost rises to* **$96,000 per graduate**, *and when the investment in unprepared graduates is considered, the real cost rises to* **$137,000 per prepared graduate**.

**After 1996, total expenditures per pupil in Indiana have risen by an average of 6.3% per year, or almost three times the rate of inflation.**

- *Costs will increase substantially in the coming decade. Based on enrollment projections and assuming that dropout rates and underperformance continue unchecked, the taxpayers of Indiana will spend* **$120,000 per graduate** *and* **$193,000 per prepared graduate** *by 2009.*

- *Indiana pays its teachers better than most states and it has hired more and more of them, even as enrollment numbers for the state have dropped from three decades ago. Pupil-teacher ratios have dropped as a result, from 23 students per teacher in 1974 to roughly 17 students per teacher today.*

- *Indiana's artificial school-district boundaries—which coincide neither with town or genuine community boundaries nor with meaningful economic areas—have a very negative impact on education decisions and perceptions in the state. Suburban flight is a severe problem in Indiana as parents flee to the false comforts of "better" school districts, exacerbating income and race divisions.*

- *Rather than fixing Indiana's worst schools and school districts, the current system unintentionally ignores and isolates them. Ultimately, however, education failure cannot be isolated and it must not be ignored. The poor performance of one school district drags down the economic prospects and social cohesion of the region around it.*

- *This study examines the a wide range of "inputs" to determine whether such external factors truly explain the poor performance of many Indiana students—as defenders of the status quo would have us believe. We find no single "input" or external factor—class size, level of teacher salary or experience, geographic location, etc.—that adequately explains the variation in school and student performance. The problems are inside Indiana's current public education system. No amount of tinkering at the margins of that system will bring about genuine improvement.*

## How well are Indiana's public schools doing?

How well are Indiana's public schools doing? Most Hoosiers cannot answer that question. Sure, they pick up small pieces of the answer in occasional newspaper headlines, when Scholastic Assessment Test (SAT) and Indiana Statewide Testing for Educational Progress (ISTEP+) results are made public. The numbers go up a few points one year and down a few points the next. But up a few and down a few does not tell a meaningful story. Test scores are snapshots that show part of a moving picture. To answer the question about how Indiana's public schools are doing requires putting a wide range of

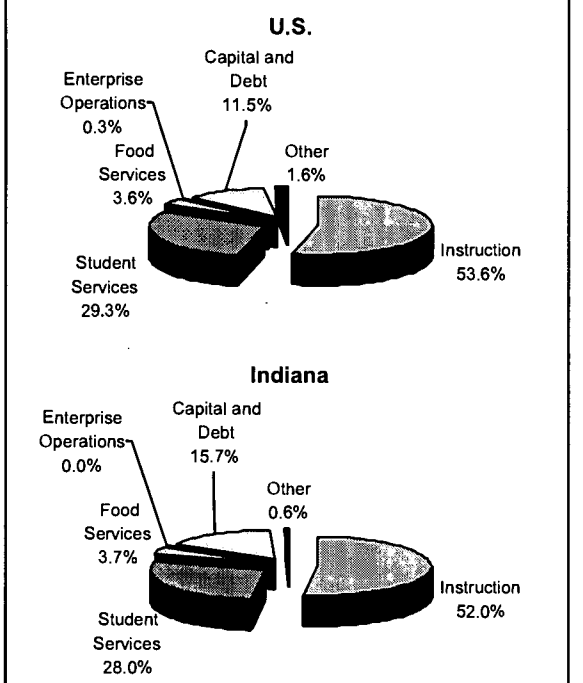
snapshots together and viewing them over time. That's a difficult task, but it must be done.

The process of determining how schools perform tells us much about why schools perform the way that they do. Education systems are not static. When Indiana's pioneers came across the Alleghenies, they did not find a landscape dotted with enormous high school campuses and shining new elementary schools all organized into consolidated districts.

Schools are human inventions. Like other inventions, our schools have been tinkered with here and adjusted there. The first 150 years of Hoosier education brought considerable evolution and, since 1974, change has come even more quickly. The front doors to our schools look pretty much the same as they always have, but the education system as a whole—how we teach, what we teach, how we teach to teach, what we spend, and who gets to spend—has undergone many changes. Like other inventions, schools cost money. They are an investment, intended to produce positive returns. In this report, we will examine both the education investment and the education returns in Indiana.

Chart 1

**1994-95 K-12 Spending by purpose, U.S. vs. Indiana**




Source: U.S. Department of Education. Hudson Institute.

## The Price of Commitment

Commitment to our children means commitment to education, which in turn requires a financial investment. If that is the case, then Americans—and Hoosiers in particular—should congratulate themselves. In 1998, Americans spent $740 billion on education and training, making that industry second only to health care in total expenditures.[1] This amount is fully 8% of America's Gross Domestic Product (GDP). We spend more than one-and-a-half times as much on education as we do on Social Security and twice as much as we do on defense. We spend more on education in the USA than the value of the entire economies of Canada or Spain.

Table 1

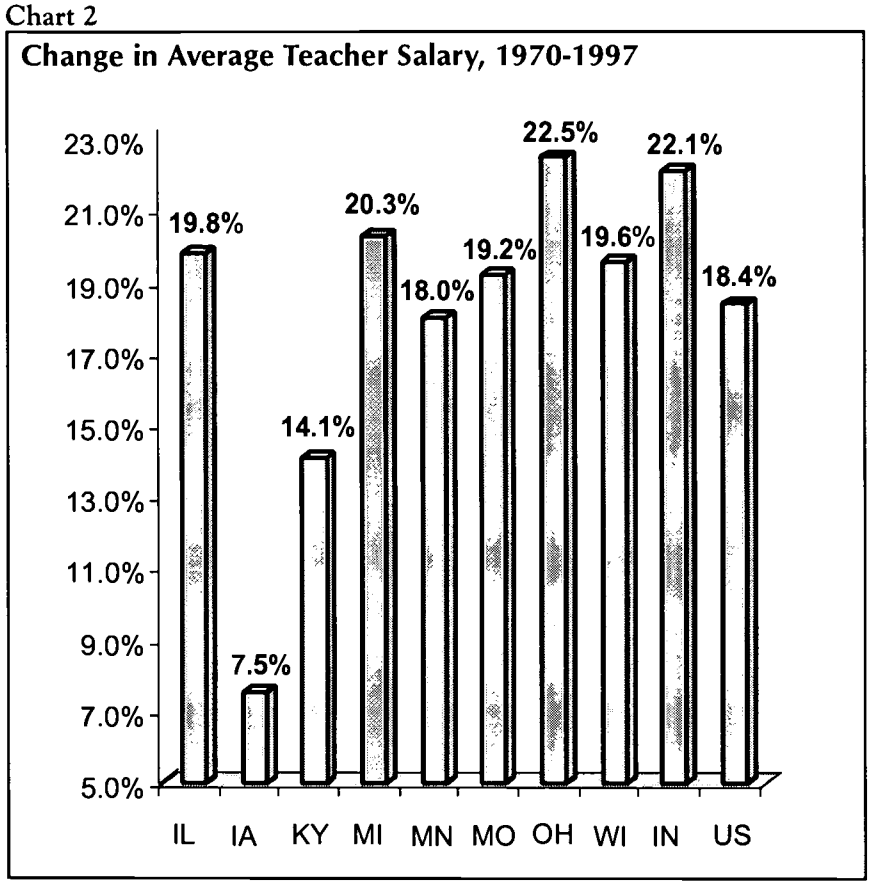
**Change in Per Pupil Spending, 1985-86 to 1995-96**

| | |
|---|---|
| Indiana | 34% |
| Illinois | 17% |
| Iowa | 14% |
| Kentucky | 52% |
| Michigan | 24% |
| Minnesota | 9% |
| Missouri | 25% |
| Ohio | 22% |
| Wisconsin | 22% |
| U.S. | 15% |

Source: U.S. Department of Education. Figures based on lastest available data. All figures in inflation-adjusted dollars.

*Despite a decline in total enrollment in Indiana public schools since the 1970-71 school year, the number of teachers in Indiana schools has risen since that time. The result has been a nearly 40% increase in the total amount Indiana pays its teachers.*

Chart 2




Source: U.S. Department of Education.
Hudson Institute.
All figures in inflation-adjusted dollars.

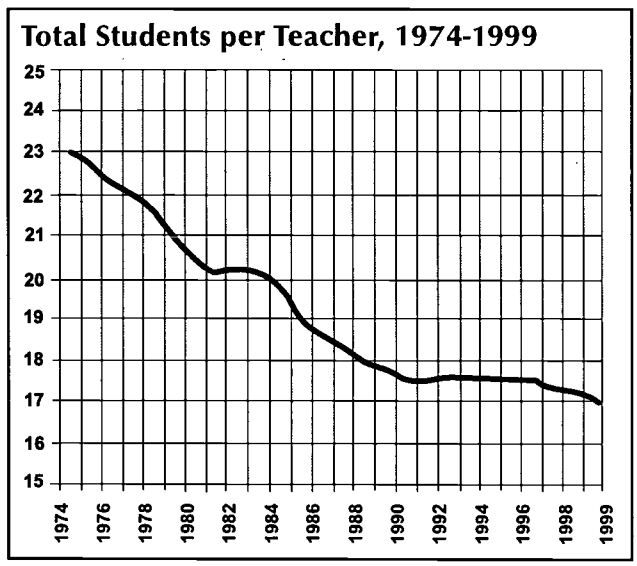
Indiana spends even more generously on education than most U.S. states. Total expenditures on education in Indiana during the 1999 fiscal year were more than $7.7 billion. That works out to approximately $7,800 per student.

We do not point this number out to say that Indiana spends too much on education. The following pages discuss education spending from a variety of different perspectives. Never are these numbers intended to prove that we devote too many resources to our schools. This section of the chapter is meant to show that we spend a considerable amount.

The larger point is that education is about outcomes, about what students learn. How much we spend in this area or how fast expenditures have risen in that area cannot prove whether we spend too much or too little. The results of our efforts, what our students learn, determine whether we have invested wisely in our children's future.

Though Indiana spends more on education than most states, it spends the money in much the same ways as the rest of the country (see Chart 1). Indiana spends comparably more on school buildings than do other states, ranking 14th in the nation in the percentage of K-12 spending that goes toward capital costs, but otherwise we look typical.[2]

Chart 3




Source: Indiana Department of Education.

Indiana is not typical, however, in the rate at which its spending on education has increased. Since 1974 and especially during the 1980s, education spending has risen much more rapidly here than in other states.[3] (Note that in all instances when spending figures are used in this report in time sequence, figures are reported in *inflation-adjusted* dollars.) In the 1969-70 school year, Indiana ranked 33rd in the nation in spending per pupil. By the 1995-96 school year, Indiana's per pupil spending had climbed to 21st in the nation. (I) Table 1 shows how much faster spending has risen here than in almost all of our neighboring states. Though no multi-state data is available for the years since 1996, Indiana's school system shows no signs of slowing down its spending growth. After 1996, total expenditures per pupil in Indiana have risen by an average of 6.3% per year, or almost three times the rate of inflation.[4] (II)

The bulk of education spending falls under the vague title of "instruction." That means teacher salaries. Here, too, spending has risen rapidly. In 1980-81, Indiana's average teacher salary was the 22nd highest in the country. Sixteen years later, teacher salaries had climbed to almost $39,000 dollars per year, and Indiana's rank had climbed to 16th highest in the country. Chart 2 shows how much faster teacher salaries have risen here in Indiana than in most of the Midwest.[5] Since the 1996-97 school year, Indiana's teachers have continued to see significant raises. The average teacher in Indiana now makes over $41,000 per year.[6]

***It would have been reasonable to expect a decline in administrative personnel as a result of school consolidation efforts, but the opposite occurred.***

I The dates of comparison used in this report vary based on availability of data from different sources. The U.S. Department of Education, for example, publishes national data later than the Indiana Department of Education make figures available (lagging the IDOE by as many as 4 years).

II To arrive at spending figures more recent than those available from the U.S. Deptartment of Education, we have calculated per pupil expenditures by summing the total spending for each school district reported by the Indiana Department of Education and dividing the total by the sum of total enrollment for each school district.

**Various Calculations of the Real Cost of Education**

Base Cost per Graduate of a K-12 Diploma =

$83,000

Cost per Graduate of a K-12 Diploma, including the Cost of Dropouts =

$96,000

Cost per Graduate of a K-12 Diploma, including the Cost of Dropouts and estimated Cost of Unprepared Graduates =

$137,000

Source: Hudson Institute.

Hoosiers are not just paying more to individual teachers; we also are paying more teachers. Despite a decline in total enrollment in Indiana public schools since the 1970-71 school year, the number of teachers in Indiana schools has risen since that time. The result has been a nearly 40% increase in the total amount Indiana pays its teachers (in inflation-adjusted dollars). In 1998-99, total base teacher salaries (not including supplemental salaries, benefits, or training allowances) came to $2.4 billion dollars.[7]

The sizeable growth of our teaching force is not a surprise. For decades, reducing class size has been a major goal throughout most of the country. More surprising is the accompanying growth in the number of what the Indiana Department of Education terms "administrative, guidance, and auxiliary" personnel. These are principals, assistant principals, guidance counselors, librarians, and other support staff. It would have been reasonable to expect a decline in administrative personnel as a result of school consolidation efforts, but the opposite occurred.

***The total amount spent on students who dropped out of the Class of 1996 was about $750 million.***

Immediately after the creation of Indiana's current funding formula, in 1974, there were nearly 162 students per administrative, guidance, and auxiliary employee. By 1998-99, the ratio had dropped 34% to 107. By 1998-99, the average salary of these non-instructional employees was nearly $56,000 per year (across all contract arrangements) with total salary expenditures for this class of employees totaling about $515 million. This brings total Indiana spending on education employee salaries to nearly $3 billion a year.[8]

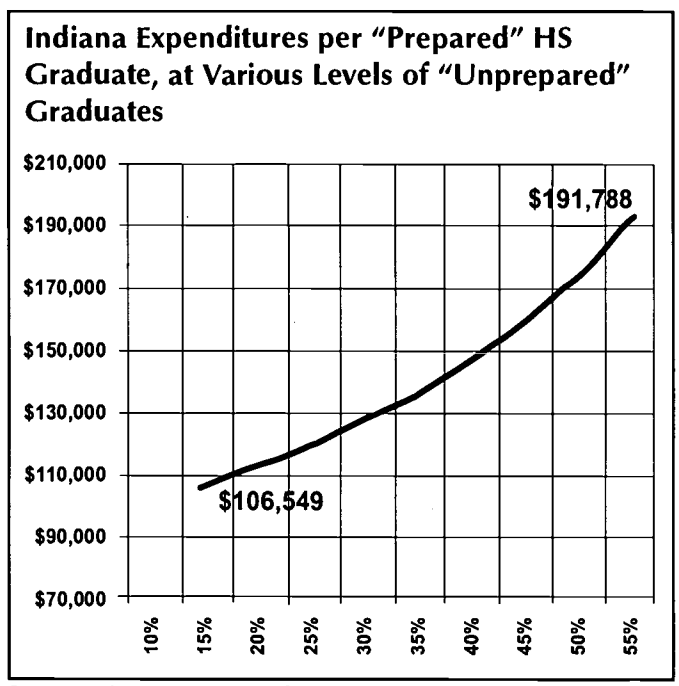
## The (Real) Price of Commitment

The numbers above give a fairly comprehensive picture of how Indiana spends its education dollars and just how quickly that spending has been rising. However, the raw numbers do not tell the whole story. Hoosiers spend money on education for a reason. The specific goals of our education system will always evolve, but our general goal should not change: K-12 public education

should produce high school graduates who can take their places in the civic and economic fabric of our communities. It is important to examine our investment in education in light of this fundamental goal.

Educating a child to the level of a high school graduate must be our bedrock goal for that child from the first day that he or she walks through our public school doors. If we measure the cost of education based on the assumption that students should, at minimum, obtain a high school diploma, then the price of public education in Indiana rises dramatically. Even small increases in *per student expenditures* lead to an enormous rise in *per graduate expenditures*.[9] Taking into account the rising per student expenditures over time, Indiana spent $83,152 (III) per graduate for the Class of 1998.

Chart 4




Source: Indiana Department of Education. Hudson Institute.

As dramatic as that number may sound, it still minimizes the true cost of educating a child to the point at which he or she can walk, diploma in hand, down the graduation aisle and out into the larger world. Thousands of students in Indiana should walk down that aisle every year but do not. Indiana's dropout rate continues to be unacceptably high: roughly one out of every ten students who could graduate does not.[10] For all practical purposes, these dropouts carry with them the tens of thousands of dollars we have spent on them. The total amount spent on students who dropped out of the Class of 1996 was about $750 million. (IV) If we accept high school graduation as a fundamental goal by which to measure the purpose of a K-12 education system, then, in the case of dropouts, the taxpayers' investment is simply lost.

None of this means, of course, that dropouts provide no "value" to our economy or our society. It simply means that our expectation from our system

[III] This number was attained by taking the cost of educating a child in each of his or her school years and then summing those individual year costs. So, for the Class of '98, the relevant expenditures begin in the 1985-86 school year.

[IV] The dropout rate for the Class of 1998 was reported by the State as 12 %. Dropouts are tracked by the state beginning in the 7th grade. Easy calculation yields how many students dropped at each grade level. Then, it is a simple process to multiply the number of dropouts in, for example, the 7th grade by the total cost of educating a child to the 7th grade level, and so on. The sum is the total cost of dropouts.

***Public education has the overarching goal of high school graduation. If that goal is not met by thousands of young Hoosiers, then it is the duty of parents, educators, employers, and taxpayers in Indiana to demand accountability, not to sweep the costs of failure under the rug.***

is a qualified high school graduate. No manager in a business setting—or, at least, no manager who keeps his job for very long—would accept an accounting statement that lists "lost assets" as a line item and leaves it at that. As the stewards of our children and their education, parents and taxpayers should not accept such a situation either. The real cost of graduating a child in Indiana must include a portion of the cost of those who do not graduate. The calculation is simple: *base cost per graduate + cost of dropouts/number of graduates*. For the Class of 1998, the total real cost rises to about $96,000 per graduate when the cost of dropouts is included.

That is not an investment calculation that is generally considered when Hoosiers examine how much it costs to educate a child. But it is a calculation that must be considered if we are to improve our education system. Public education has the overarching goal of high school graduation. If that goal is not met by thousands of young Hoosiers, then it is the duty of parents, educators, employers, and taxpayers in Indiana to demand accountability, not to sweep the costs of failure under the rug.

There is no sure way to determine what portion of our graduates leave school unprepared for the challenges ahead, but Chart 4 details the resulting expenditures per "prepared graduate" at various levels of "unprepared graduates." This is a "what if?" chart. If ten percent of our 1998 graduates lacked the skills they needed, then the real cost of educating each well-prepared graduate was about $107,000. If 30% of graduates were unprepared, then the real cost was almost $137,000 per prepared graduate.

Sadly, there is ample reason to believe that the proportion of unprepared graduates in Indiana is very high. In the 1998-99 school year, only 55% of Indiana's sophomores passed the 10th grade ISTEP, which must be passed before graduation. The 45% who failed will have multiple opportunities to retake the exam. But the test assesses mastery of 9th grade skills. Passing the test in the junior or senior year does not demonstrate 12th grade competency, just 9th grade competency. One can only imagine the failure rates if the exam measured senior-level skills. It is very likely that the 45% of students who do not pass the exam the first time, will never acquire 12th grade, diploma-level skills. Even if one assumes that all of a class's dropouts (about 12% of last year's total) will come from the 45% who fail the ISTEP in the 10th grade, then that still means that nearly 40% of students in each Hoosier graduating class gain their diplomas without having mastered necessary diploma-level skills. (V) As Chart 4 shows, at a 40% level of unprepared graduates, the

[v] For example, imagine a class of 100 students. Forty-five do not have the necessary diploma-level skills. Twelve of those 45 drop out. That leaves 33 students, out of a graduating class of 88, who do not have diploma-level skills, or 37.5% of the graduating class.

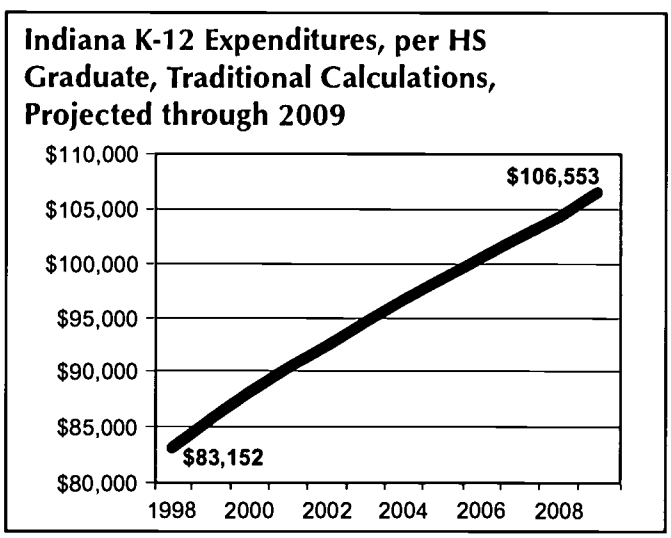
real investment in each prepared graduate rises to approximately $160,000.

There are obvious qualitative costs in the shattered human potential of thousands of children who do not graduate or do not learn what they must before being given a diploma. As we have demonstrated, there also is a quantitative cost, a price tag. Each child in an Indiana school represents an enormous investment on the part of our taxpayers, which only increases as the number of qualified high school graduates decreases. A popular bumper sticker declares: "Think education is expensive? Try ignorance." Similarly, if you think that a modern education system is expensive, then try an outdated one.

## The Future Real Price of Commitment

Education is only going to get more expensive for Indiana taxpayers. The Hoosier State's student population can be expected to grow through at least the 2006-07 school year. At that point, Indiana's student population should be between 1,022,000 and 1,030,000. (VI) By the 2009-10 academic year, Indiana's student enrollment will have declined slightly to between 1,014,000 and 1,022,000. Since our student population was slightly more than 988,000 in 1998-99, projections suggest a growth in the mid- to high-30,000s by 2007 and in the high-20,000s to low-30,000s by 2010.

Chart 5




Source: U.S. Department of Education. Hudson Institute.

Total enrollment is only half of the spending picture. The other half is spending per pupil. The U.S. Department of Education (USDOE) projects spending in three different series: low, middle, and high. To predict Indiana's future spending, one must ask which projection series best fits Indiana's historic spending patterns. The higher figures are total expenditures as reported by the Indiana Department of Education, divided by total enrollment. Given Indiana's traditional steep rise in total expenditures per student, the USDOE's higher rate of projected spending seems the most appropriate (and even that may understate reality).[11]

[VI] The two numbers result from different estimation methodologies. The higher number is the official U.S. Department of Education projection. In the last two years, these projections slightly overstated actual student population growth as recently reported by the Indiana Department of Education. The lower number is a Hudson Institute estimate that uses the growth trend predicted for Indiana by the U.S. Department of Education but adjusts it to reflect the actual counts of the past two years.

Applying the USDOE's calculations to Indiana shows that we should expect per-pupil spending by 2009 to approach $10,000. As a result, total spending on K-12 public education in Indiana (total enrollment multiplied by per pupil expenditure) will grow to more than $9.2 billion by the 2009-2010 school year, an increase of roughly 20% over today's level.

Expenditures will rise dramatically to almost $107,000 per graduate by 2009-10 using traditional formulas (see Chart 5). However, when the more legitimate cost-calculation methods introduced in the previous section are applied, the numbers become truly astonishing. The cost per graduate that includes the cost of dropouts rises to $120,500 by 2009-2010, while the cost per prepared graduate hits $193,000. (VII)

***Being the best is an important goal. Being the best of the worst is less of an achievement.***

The size of the investment Hoosiers make in our children's education is not a problem in itself. If the vast majority of students actually graduated from our public schools—and graduated with the skills necessary to go on to college or to get a skilled job—then our public investment would be worth every penny. But it is foolish to spend as much as we do in Indiana, and then to fall as far short as we do of the most basic public education goals. We do not spend too much or too little on education in Indiana. We simply do not spend wisely. We spend on an education system that is failing, as the following sections will illustrate in stark terms.

## The Longer They're In, the Worse They Perform

To understand the performance of an education system as a whole, it is necessary to examine the performance of its students. Moreover, it is necessary to examine the performance of students at different stages in their K-12 education and it is necessary to examine the performance of students from different socio-economic backgrounds. We will take such a comprehensive look at Indiana's K-12 public education system.

In the early grades, Indiana's public schools seem to perform adequately. As in a basketball game, however, it does little good to hold your own in the beginning if you lose in the end. Unfortunately, the relative performance of Indiana's public school students gets worse the longer they remain in the system.

Periodically, the U.S. Department of Education tests 4th, 8th, and 12th graders across the country in several subjects. The subjects on the National Assessment of Educational Progress (NAEP) tests include Arts & Music, Civics, Geography,

[VII] These figures assume that the grade-by-grade dropout profile will be the same in the next decade as for the Class of 1998. It also assumes that the ratio of the number of dropouts to the number of graduates will be the same in the next decade as for the Class of 1998 and that the estimated 40 % "unprepared graduate" ratio remains constant.

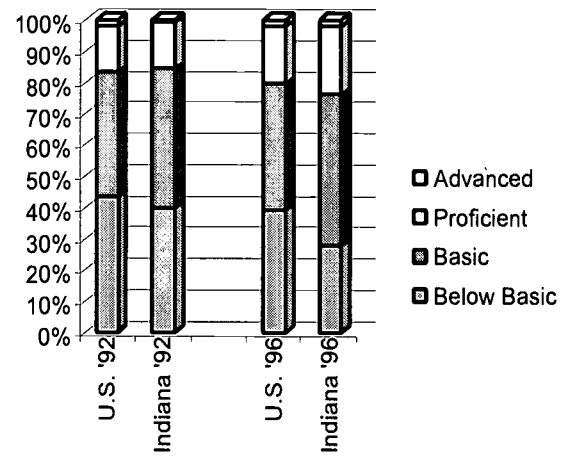
History, Math, Reading, Science, and Writing. State-level results are reported intermittently, but in the one subject that is reported at the elementary level, math, Indiana's students do well. Only five states outperform Indiana. Indiana also showed a strong improvement of five points on the latest test, given in 1996, over the previous round of examinations in 1992.[12]

Celebrating victory is premature, however. The NAEP program also reports scores according to "achievement level." Students' scores are categorized as Advanced, Proficient, Basic, or Below Basic. A large share of our 4th graders, 28%, fall into the Below Basic camp (see Chart 6). At the other end of the spectrum, only two percent of our 4th graders are categorized as Advanced. We have made significant progress in elementary mathematics recently, but there is a long way to go.

There is further evidence that a significant portion of our children already have begun to fall through the system's cracks by the time they are nine or ten years old. Indiana's ISTEP+ results at the 3rd grade level are consistent with the NAEP scores. The failure rate on the mathematics portion of the ISTEP+ was 30% in 1998-99. Mathematics is only half the exam, as students are also tested on Language Arts skills. Forty-two percent of our 3rd graders did not pass both sections of the test. Therefore, the success of Indiana's 4th graders on

Chart 6

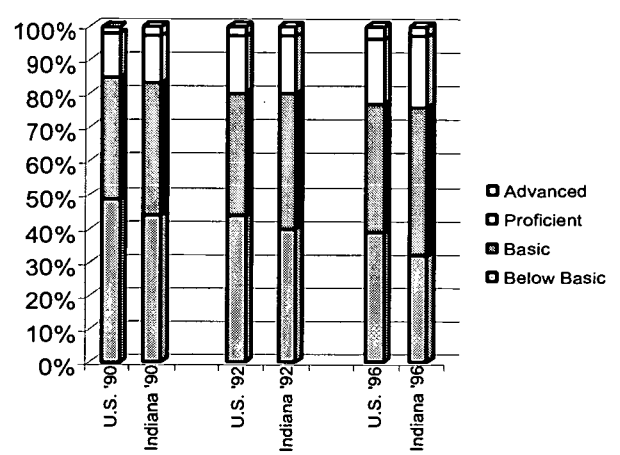
**NAEP Fourth Grade Math Achievement Levels, U.S. vs. Indiana, 1992-1996**




Source: U.S. Department of Education.

Chart 7

**NAEP Eighth Grade Math Achievement Levels, U.S. vs. Indiana, 1990, 1992, & 1996**




Source: U.S. Department of Education.

***There is something troubling about a system in which 60% of our students care enough about their education to take a college entrance exam, but only 55% can get the education necessary to pass a high school exit exam the first time they take it.***

the NAEP exam should be viewed with caution. Being the best is an important goal. Being the best of the worst is less of an achievement. Nearly a third of our children cannot attain even basic proficiency at math skills the U.S. government deems critical (in the NAEP exam) or math skills our own state deems critical (in the ISTEP+). Nearly half cannot demonstrate a basic mastery of both the critical math and language arts skills. (VIII)

The cracks that are evident in Indiana's education system at the elementary level widen considerably by the time students hit our middle schools. At the 8th grade level in math, 13 states outperform Indiana, up from only five in the 4th grade. In science, students in 15 other states outperform Indiana's 8th graders. Indiana's students still score higher than the U.S. average, but a pattern of declining success clearly emerges when the 8th grade and 4th grade results are compared. The decline also shows up in the achievement levels of our 8th graders as scored by the USDOE (see Chart 7). Twenty-eight percent of our 4th graders fall below a basic level of achievement in mathematics, but 32% of our 8th graders do. This means that our middle school leave behind even more students than our elementary schools. Meanwhile, only three percent of our middle schools students attain an advanced proficiency rating in math.[13]

The same pattern emerges in the ISTEP+ results for the 6th and 8th grades. (IX) While 30% of 3rd graders fail the mathematics section of the ISTEP+, 41% of 6th graders and 37% of 8th graders do. The ISTEP+ results are even more dismal when one considers the percentage of students who cannot demonstrate minimum mathematics and language arts skills. Fifty percent of our 6th graders failed to do so this year; 43% of our 8th graders did.[14]

By the middle of their high school years, around 40% of our students are clearly having great difficulty mastering basic skills. On the 1998-99 ISTEP+, 45% of our students did not pass both the math and language arts sections. Forty-one percent could not pass math requirements and 28% failed the language arts portion.[15] The 10th grade ISTEP+ also functions as the graduation qualifying exam in Indiana. Beginning with the Class of 2000, students must pass both sections of the ISTEP+ to earn a high school diploma. In the Indianapolis Public Schools, 39% of the Class of 2000 has yet to pass the exam. This means that at the time of this writing, only 872 students in the Class of 2000 (out of a total of 1,430 enrolled) will receive diplomas in May. The IPS Class of 2000 began with 4,420 ninth-graders.

[VIII] This report uses ISTEP+ scores for the 1998-99 school year. 1999-2000 data were not available at the time of publication.

[IX] School type at the 6th grade level is split between elementary and middle schools in different parts of the country. For the purposes of this report, 6th grade is considered a middle school grade.

## SAT Performance Lags the Nation

High school is when many students take a variety of exams to begin their college admissions process: the SAT, ACT, and Advanced Placement (AP) exams. Results on these tests bring home the full impact of our system's failure.

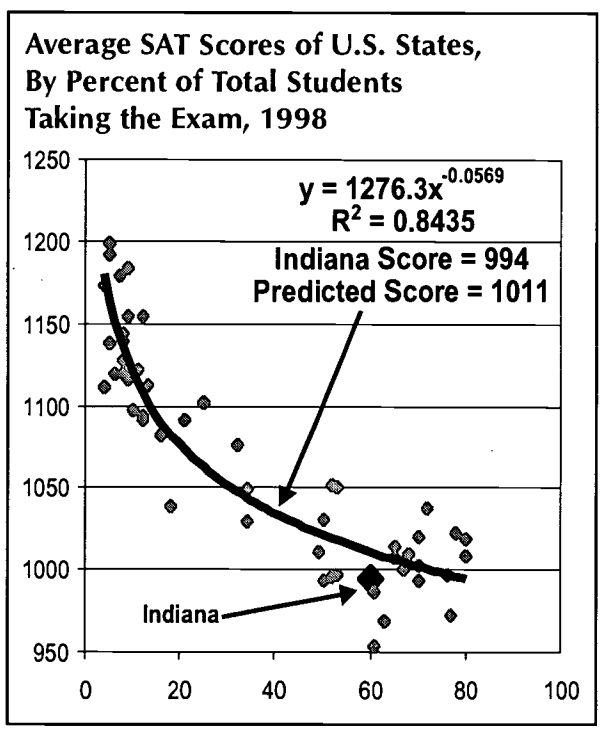
It is widely known that Indiana students perform poorly on the SAT. We are presented with headlines every year that tell us how Indiana scores in the bottom five or ten states in the entire country. Last year, Indiana ranked 45th among all states and the District of Columbia, with an average score of 994 out of a possible 1600.[16]

Then, every year, press accounts tell us that things really aren't all that bad, or that we're "turning a corner." The most commonly proffered rationale for our low performance is that a greater percentage of Indiana students take the SAT than in other states. As a general rule, higher participation rates correlate with lower average SAT scores. The logic is simple: If only the top five or ten percent of a state's students take the SAT, then that state almost certainly will post an average score that is higher than a state where 50% of all students take the exam. This common sense principle shows up in the data. The fact that 60% of Indiana's students took the SAT last year naturally will mean that our average score is lower than the average score in a state like Iowa, where only five percent of the students spend a Saturday morning filling in bubbles.

***The problem is not that Iowa scores better than Indiana does. The problem is that Indiana should score better than Indiana does.***

The problem is not that Iowa scores better than Indiana does. The problem is that Indiana should score better than Indiana does. Even casual examination of the SAT data suggests that there are difficulties with the general argument. Fifteen states and the District of Columbia have higher participation rates than Indiana, but only five states and DC score lower. (X) Another problem with the standard defense of Indiana's poor showing on the SAT is Indiana's performance on the alternate college entrance exam, the ACT. Thirty states have higher participation rates on the ACT than Indiana's 19%. Seventeen of those 30 have a higher average ACT score than Indiana's 21.2.[17]

Chart 8

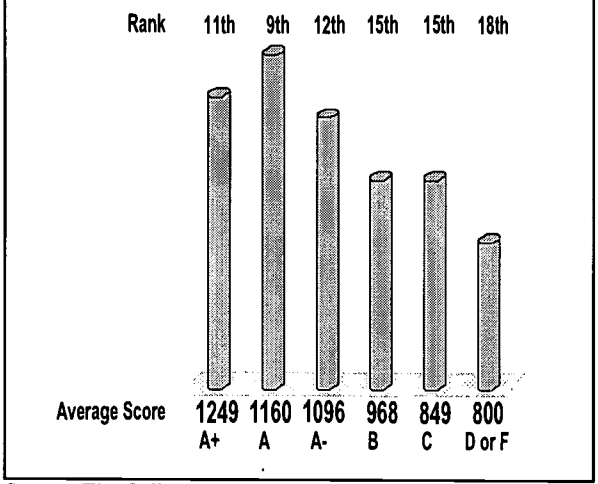



Source: The College Board.
Hudson Institute.

[x] The lower-scoring states are Pennsylvania, Texas, North Carolina, South Carolina, and Georgia.

Chart 9

**SAT Performance by Student GPA, National Rank of Indiana Students among the 25 SAT States in Each GPA Level, 1999**




Source: The College Board. Hudson Institute.

Glaring holes like these in the standard defense should lead us to take a still more nuanced look at how our students score. Chart 8 shows three things: a scatter plot of all states' and DC's average SAT scores by participation rate, Indiana's average score, and a "power curve" that predicts scores based on the participation rates and scores of all states. The power curve shows how an "average" state should perform at a given level of exam participation. The result suggests that Indiana does not do as well as it should, falling 17 points below what the model of "average" performance predicts. Indiana's problem is not that six out of ten of our students take the SAT. Indiana's problem is what the six out of ten who take the SAT learn in our schools or, rather, do not learn. There is something troubling about a system in which 60% of our students care enough about their education to take a college entrance exam, but only 55% can get the education necessary to pass a 9th grade competency exam the first time they take it.

***Even among our A+ students, the gap between their SAT scores and the SAT scores of the nation's best students is hundreds of points.***

The more one delves into the specific details of Indiana's SAT results, the more disturbing the findings become. One of the underutilized sources of education data is the collection of background data on all SAT test-takers assembled by the College Board. Prior to the test, each examinee fills out a series of questions about his or her grade-point average (GPA), course-taking history, family income, family education, school size, and other characteristics.

The College Board correlates SAT scores with six different student GPA categories: A+, A, A-, B, C, and D or F. The average SAT scores of Indiana's high-GPA students do not compare well with the scores of high-GPA students in other states. Chart 9 shows that Indiana's best students are only average when compared with the best students of other states. The average 1999 scores of our A+, A, and A- students, respectively, were 1249, 1160, and 1096. These scores put them in the middle of the pack of states that use the SAT as their primary exam for college admissions. (XI) There is a large gap between our best students and the best students in many other SAT-reliant states. Connecticut's A+ students, for instance, outscore our A+ students by 71 points.

[XI] Twenty-four states and the District of Columbia prefer the SAT over the ACT. These states are Alaska, Arizona, California, Connecticut, Delaware, Florida, Georgia, Hawaii, Indiana, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, North Carolina, Oregon, Pennsylvania, Rhode Island, South Carolina, Texas, Vermont, Virginia, and Washington.

Table 2

**Position of Indiana's Best Students in the Competition for Admission to America's Top Universities.**

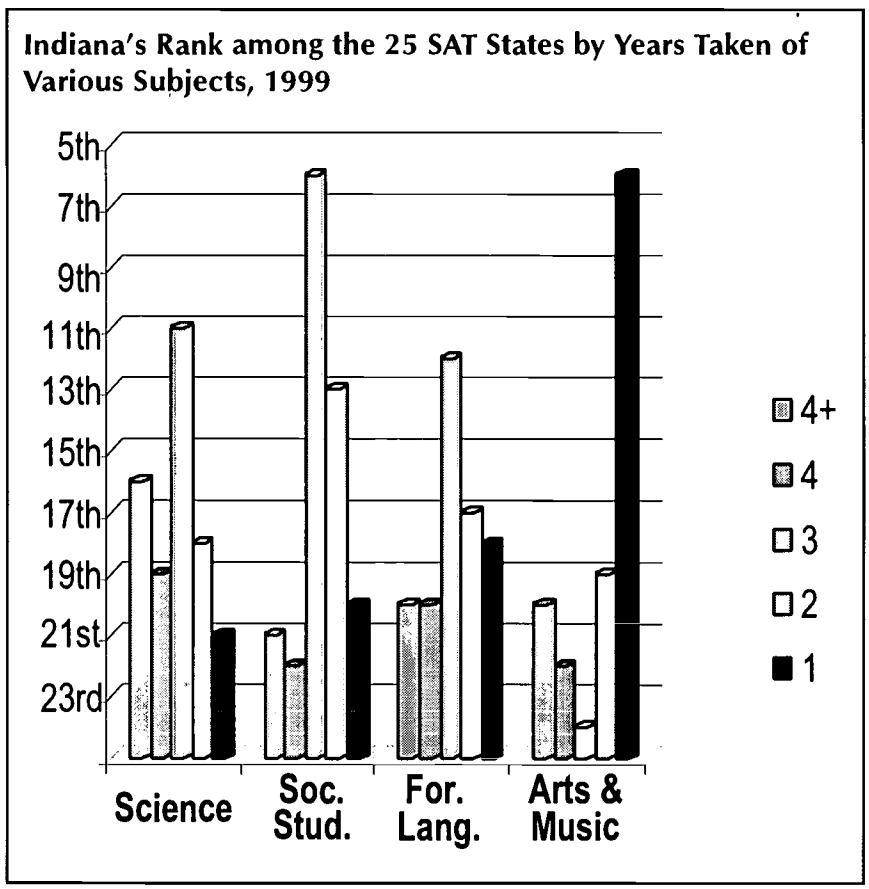
| University | University Average Score | | "A+" Average Score (1249) GAP | | "A" Average Score (1160) GAP | | "A-" Average Score (1096) GAP | |
|---|---|---|---|---|---|---|---|---|
| | 25th percentile | 75th percentile | 25th percentile | 75th percentile | 25th percentile | 75th percentile | 25th percentile | 75th percentile |
| 1. Caltech | 1420 | 1570 | -171 | -321 | -260 | -410 | -324 | -474 |
| 2. Harvard | 1400 | 1580 | -151 | -331 | -240 | -420 | -304 | -484 |
| 3. M.I.T. | 1400 | 1560 | -151 | -311 | -240 | -400 | -304 | -464 |
| 4. Princeton | 1360 | 1540 | -111 | -291 | -200 | -380 | -264 | -444 |
| 4. Yale | 1360 | 1540 | -111 | -291 | -200 | -380 | -264 | -444 |
| 6. Stanford | 1360 | 1540 | -111 | -291 | -200 | -380 | -264 | -444 |
| 7. Duke | 1300 | 1490 | -51 | -241 | -140 | -330 | -204 | -394 |
| 7. Johns Hopk. | 1290 | 1480 | -41 | -231 | -130 | -320 | -194 | -384 |
| 7. Penn | 1300 | 1480 | -51 | -231 | -140 | -320 | -204 | -384 |
| 10. Columbia | 1290 | 1490 | -41 | -241 | -130 | -330 | -194 | -394 |
| 11. Cornell | 1260 | 1450 | -11 | -201 | -100 | -290 | -164 | -354 |
| 11. Dartmouth | 1350 | 1520 | -101 | -271 | -190 | -360 | -424 | -254 |
| 13. U. Chicago | 1250 | 1460 | -1 | -211 | -90 | -300 | -154 | -364 |
| 14. Brown | 1290 | 1500 | -41 | -251 | -130 | -340 | -194 | -404 |
| 14. Northwestern | 1280 | 1460 | -31 | -211 | -120 | -300 | -184 | -364 |
| 14. Rice | 1310 | 1530 | -61 | -281 | -150 | -370 | -214 | -434 |
| 17. Washington | 1250 | 1420 | -1 | -171 | -90 | -260 | -154 | -324 |
| 18. Emory | 1280 | 1450 | -31 | -201 | -120 | -290 | -184 | -354 |
| 19. Notre Dame | 1240 | 1400 | 9 | -151 | -80 | -240 | -144 | -304 |
| 20. Berkeley | 1230 | 1450 | 19 | -201 | -70 | -290 | -134 | -354 |
| 20. Vanderbilt | 1230 | 1420 | 19 | -171 | -70 | -260 | -134 | -324 |
| 22. U. of Virginia | 1210 | 1410 | 39 | -161 | -50 | -250 | -114 | -314 |
| 23. Carnegie | 1270 | 1470 | -21 | -221 | -110 | -310 | -174 | -374 |
| 23. Georgetown | 1260 | 1450 | -11 | -201 | -100 | -290 | -164 | -354 |
| 25. U.C.L.A. | 1170 | 1380 | 79 | -131 | -10 | -220 | -74 | -284 |
| 25. U. of Michigan | 1160 | 1380 | 89 | -131 | 0 | -220 | -64 | -284 |

Source: The College Board. *U.S. News and World Report.*
Repeated ranking reflect ties.

***Being an A student in an Indiana public school still makes it difficult to compete with A students from other states, but being a B or C student here makes it difficult to compete with just about anyone.***

The Indiana public school system's inability to make our state's best students competitive with the best students elsewhere has very tangible consequences. Each year, *U.S. News and World Report* publishes a list of what it considers the best universities in the nation, along with data about each school that includes the 25th and 75th percentile SAT scores of its last freshman class. (XII) Last year, the California Institute of Technology, Caltech, was ranked the best university in the country by *U.S. News*. The SAT score of the student in the 25th percentile of the Caltech freshman class was 1420, or a full 171 points higher than the average A+ student scored in Indiana and a full 260 points higher than the average A student scored.[18]

Chart 10




Source: The College Board

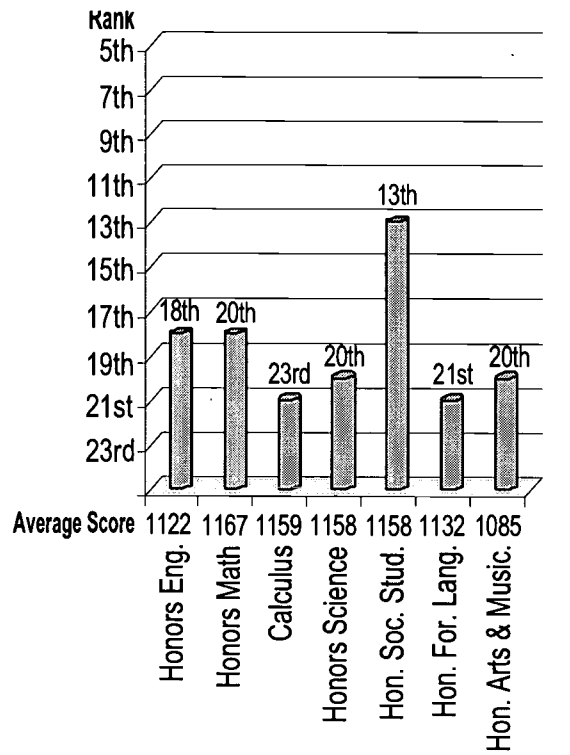
[XII] The 75th percentile SAT score would be the score of the entering freshman whose score was better than 74% of the rest of the freshman class, or lower than 24% of the rest of the freshman class. The 25th percentile is the SAT score that was higher than 24% of the rest of the class and lower than 74% of the rest of the class. For example, if Caltech's entering 1998-1999 freshman class consisted of 254 students, the 75th percentile score was the score of the freshman who had roughly the 63rd best SAT score. The 25th percentile score was the score of the freshman who had roughly the 191st best SAT score.

Table 2 goes beyond Caltech to list the 25th and 75th percentile SAT scores of the last freshman classes of the other *U.S. News and World Report* top-25 universities in the nation. These scores are then compared to the average scores of Indiana's A+, A, and A- students. Even among our A+ students, the gap between their SAT scores and the SAT scores of the nation's best students is hundreds of points. Indiana's best are hard pressed to compete on merit for a slot in a top university, so long as this situation continues.

Being an A student in an Indiana public school still makes it difficult to compete with A students from other states, but being a B or C student here makes it difficult to compete with just about anyone. These students' scores put them in the bottom 40% among their peers in other SAT states. It is little wonder that our states' major public universities decry the number of students who require remedial education at the college level to finish the job that should have been done in our elementary, middle, and high schools.

Chart 11

**Indiana's Rank among the 25 SAT States by Advanced Courses in Various Subjects, 1999**




Source: The College Board

Part of the difficulty facing our students who want to achieve is that there do not appear to be the gains from advanced coursework in our schools that there are in other states. Chart 10 compares Indiana students who have taken a specific number of courses in a specific subject to students from other states with the same number of courses in the same subject. In all subjects, the average SAT score is higher, the more courses a student has completed. However, the chart does suggest that the benefit from additional coursework in Indiana is not as high as it is in other states.[19] The conclusion that higher levels of coursework do not benefit Indiana students as much as they should calls into question the quality of courses being offered in Indiana schools. Fourth year and advanced courses evidently do not provide our students with the skills-bounce that similar courses provide students in other states. That finding is

***Indiana's performance on the AP is abysmal. We currently rank 49th out of the 50 states and the District of Columbia in the percentage of exams taken that received a score of three or higher. This is an improvement; in previous years, we placed 50th.***

further supported by the College Board's correlations between advanced courses and SAT scores. Chart 11 shows that in only one subject, social studies, does advanced coursework raise Indiana students into the ranks of the top fifteen SAT states. In half the subjects (science, foreign language, and arts and music), the SAT scores of Indiana students completing an honors course fall among the bottom five of all SAT states. The SAT scores of our honors math and English students rank 16th and 18th, respectively, out of 25. Students who have taken our Calculus courses rank 23rd. [20]

The above data help to explain one of the most disturbing indicators of Indiana's educational quality: its performance on the Advanced Placement, or AP exams. The AP program is a battery of voluntary tests given every year in an ever-increasing number of subjects. (XIII) If a student scores well (earning a three or higher out of a possible five), the student is granted college credit in that subject.

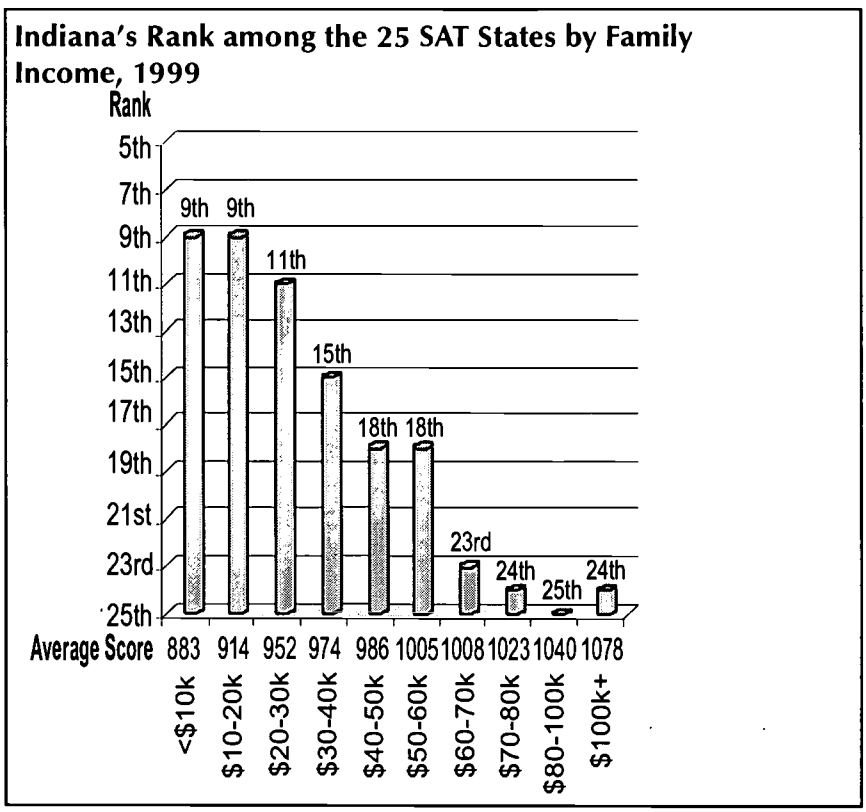
Indiana's performance on the AP is abysmal. We currently rank 49th out of the 50 states and the District of Columbia in the percentage of exams taken that received a score of three or higher (the official comparative measure used by the College Board). This is an improvement; in previous years, we placed 50th (after Mississippi). Only slightly more than half of the AP exams taken in this state earn our students college credit, compared with almost two-thirds of the exams taken in the nation as a whole. The number of students taking AP exams has nothing to do with this result, as Indiana has a relatively low participation rate of only 98 exams taken per 1,000 11th and 12th graders, the 34th highest level of participation in the AP program.[21] This low participation rate should drive Indiana's performance up, not down.

Indiana, like most states, has spent a great deal of time discussing higher standards and more rigorous coursework on the part of our students. Our students have responded. The percentage of Indiana public school graduates earning an Honors diploma (XIV) increased from 16% of the Class of 1997 to 19% of the Class of 1998. Two hundred forty-three of 348 Indiana high schools saw this percentage rise in that two-year time period.[22] It is unfortunate, however, that our system asks students to complete more advanced courses but does not increase the quality of those courses to the level found in other states.

XIII The current subjects tested are Art, Biology, Calculus AB, Calculus BC, Chemistry, Computer Science, Economics, English, Environmental Science, European History, French, German Language, Government & Politics, International English Language, Latin, Music Theory, Physics, Psychology, Spanish, Statistics, U.S. History, Human Geography (beginning in 2000-01), and World History (beginning in 2001-02).

XIV The Honors Diploma is awarded after completion of a state mandated curriculum consisting of the following courses: Language Arts, 8 credits; Social Studies, 6 credits; Mathematics, 8 credits; Science, 6 credits; Foreign Language, 6 credits in a 3-year sequence or 8 credits in two 2-year sequences; Health & Safety, 1 Credit; Physical Education, 1.5 credits; and Fine Arts, 2 credits.

Chart 12




Source: The College Board.

***Indiana's public education system fails students everywhere, whether their trip to school winds through the newest suburbs in an SUV or through cornfields in a pick-up truck or through urban streets on public buses.***

Much of the preceding discussion is meant to explode a widely held myth about the deficiencies in Indiana's education system: good students from good families in good schools do just fine here. "The only problems have to do with student motivation or family income or neighborhood," the argument goes. Nothing could be further from the truth. Of course, like every school system, ours is one in which students get more out if they put more in. They just do not get as much out as they would in most other places. Our students do not get as much out of Indiana's system as they plainly need and deserve.

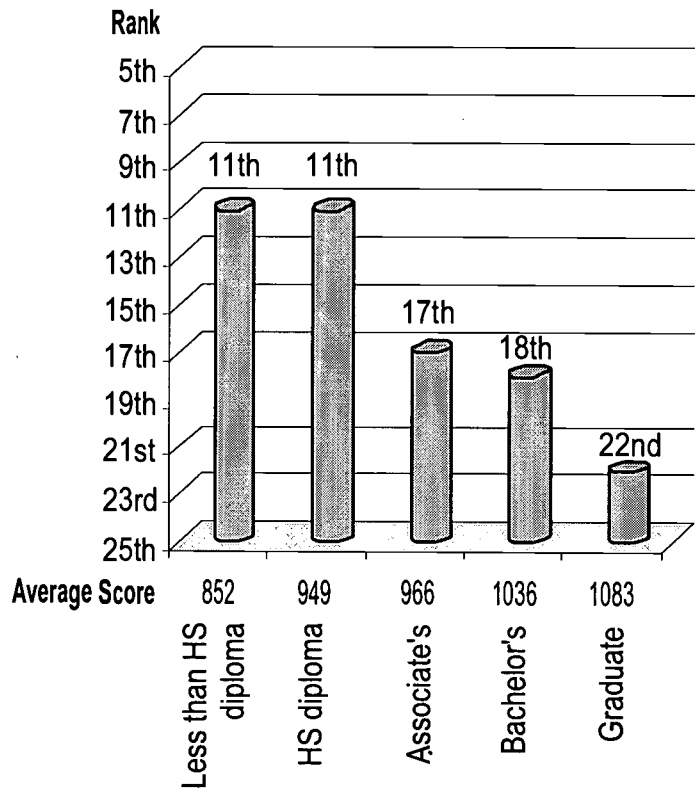
## Middle Class Blues: SAT Performance and Student Demographics

Indiana's public education system fails students everywhere, whether their trip to school winds through the newest suburbs in an SUV or through cornfields in a pick-up truck or through urban streets on public buses. The system does fail poor and urban students more severely than it does students in middle-class settings. However, things that are "less broken" are still broken.

*An individual family with sufficient income may be able to shield its children from the worst effects of a mediocre education system. Business leaders, and others whose concerns extend more broadly, can find no such shelter. Isolation is an illusion.*

Chart 13

**Indiana's Rank among the 25 SAT States by Highest Level of Parent's Education, 1999**




Source: The College Board.

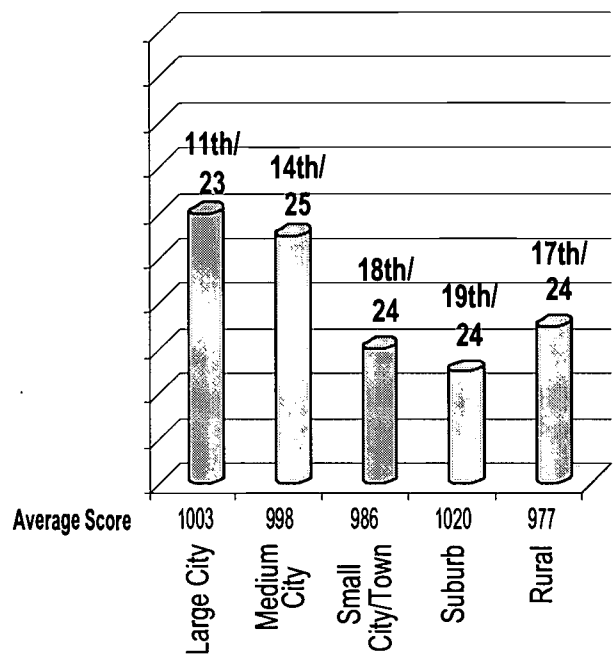
*Indiana's suburban school systems perform worse than our urban school districts, in relation to their peers in other states.*

The system's defects in educating all children show up most clearly in the correlations between income and SAT performance. Students from middle income and wealthy families score better than their poorer counterparts in Indiana. However, poor children in Indiana score better than their demographic peers elsewhere in the nation while our upper-income students do not hold their own against upper-income students elsewhere. Chart 12 details Indiana's rank among SAT states in various family income categories. Our poorest students rank a better than average 9th place when compared with the other SAT states' poorest students. But our students with family incomes of $80,000 to $100,000 rank dead last. The evidence is stark: our upper-middle class students' SAT scores are some of the lowest for their income group in the entire country.[23]

The very same pattern, contrary to conventional wisdom, appears with regard to parental education (see Chart 13). Indiana students whose parents have lower levels of education do not score as well in absolute terms as our students whose parents have high levels of education. Yet, the Indiana students whose parents are highly educated are at the greatest disadvantage when compared with their peers in other states.[24]

Chart 14

**Indiana's Rank among the 25 SAT States by School Setting, 1999**




Source: The College Board.

The pattern carries forward on Chart 14. Indiana's suburban school systems perform worse than our urban school districts, in relation to their peers in other states. The schools in our state that face the fewest external challenges from poverty and family circumstances have the greatest difficulty in bringing their students up to the performance levels of their peers elsewhere in the nation. It is difficult to imagine clearer evidence for an internal, systemic problem with public education in Indiana.

## Guaranteeing Poverty: Indiana's Education of Disadvantaged Students

The findings just described should not be interpreted to mean that Indiana's education system is one that serves poor, urban children well. On the contrary, even as the very foundation of Indiana's education system was to promote fairness, the system fails utterly in reaching that goal.

Table 3

**School Poverty Rates and Average SAT**

| Free Lunch Range | Avg. SAT |
|---|---|
| 50% - 60% | 873 |
| 40% - 50% | 869 |
| 30% - 40% | 903 |
| 20% - 30% | 964 |
| 10% - 20% | 982 |
| 5% - 10% | 989 |
| 0% - 5% | 1016 |

Source: Indiana Department of Education.

***It is possible to educate poor students. In fact, it happens all the time. It just does not happen often enough in Indiana.***

Table 3 matches school poverty rates—as measured by the percentage of students receiving free lunches (a standard education measure of poverty)—with average SAT scores at the same schools. The table shows that the average SAT score in a school increases as the poverty rate decreases.[25] SAT scores represent the efforts of college-bound students. They generally are the best students in each school, especially in poor or urban settings.

It is tragic that the poor students in Indiana who try the hardest should be dragged down by their own schools. It is one thing for some to argue that poorer areas have a higher concentration of students unwilling to apply themselves toward success. It is another thing entirely that there should be differences among high achieving students as a result of poverty or wealth. Yet, such differences exist in Indiana. Schools with a free and reduced lunch count of five percent or less average an SAT score of 1162 for their A students. Schools with a free and reduced lunch count of between 50% and 60% average an SAT score of 1008 for their A students, a difference of 154 points.[26] Unwilling to accept that the education system itself is responsible for such disparities, defenders of the status quo—such as the well-known social critic Jonathan Kozol—can do nothing but cling to the defeatist viewpoint that "poverty is destiny."

Poverty is not destiny, however. South Side High School in Fort Wayne has an *average* SAT score of 1007 (with A students doing even better), despite a free and reduced lunch rate of 35.7%. Muncie Southside High School and Lew Wallace High School in Gary score 75 points and 228 points lower than Fort Wayne South Side, respectively, even though they have nearly identical poverty rates.[27] Apparently Fort Wayne's South Side High is unwilling to accept its "destiny." The state as a whole should take its cue.

Even the coldest statistical regressions reach the same conclusion. Yes, as a general rule, free and reduced lunch counts are a significant predictor of SAT scores. But they explain only about 31% of the variability in scores. For example, if poverty is used as the sole predictor of SAT performance, then Lew Wallace High School falls below its predicted score by 140 points while Arsenal Technical High School in Indianapolis exceeds its predicted score by 191 points.[28]

The same pattern repeats itself in the relationship between free and reduced lunch counts and performance on the ISTEP+. (XV) Poverty is a partial indicator, but not a determinant, of how a student will perform. For example, Whiteland Community High School does not have many impoverished students; only 5.2% of its students qualify for free and reduced lunches. Yet a mere 37% of Whiteland's 10th graders passed the 1998 ISTEP+, barely

[xv] The regression of socio-economic status on the percentage passing the 10th grade ISTEP+ is as follows: (predicted % Passing) = -30.05421 + 97.4983309 * *(socio-economic status)*, where socio-economic status is defined as above. The adjusted R-squared value of this regression is 0.57843584 and the standard error is 8.33951209 with 340 observations.

half the number predicted if poverty were truly the sole determinant of ISTEP+ performance. Meanwhile, more than 92% of West Lafayette Junior/ Senior High School's sophomores passed the ISTEP+, even though the "poverty is destiny" model would have predicted a passing rate of slightly less than 64%. Or consider North White High School. It has eight times the poverty problem of Whiteland but still sees 17% more of its students pass the ISTEP+.[29]

Socio-economic status as defined by the Indiana Department of Education explains only 65% of the variability in school passing rates on the 8th grade ISTEP+, 47% of the variability in the 6th grade, and 45% of the variability in the 3rd grade. Jefferson Elementary School in Gary saw 75% of its 3rd graders pass the ISTEP+, well above the state average even though 83.3% of its students receive lunch assistance. Frances W. Parker School #56 in Indianapolis meets the state average for the 6th grade, despite a free and reduced lunch rate of almost 76%.[30]

The bottom line is simple: If we accept the general relationship between poverty rates and school performance as a hard and fast rule, then we make a critical mistake. The overall correlation between income and educational achievement should be a wake-up call about systemic failure, not a sign that poverty is destiny and that our system is working exactly the way it is supposed to work. It is possible to educate poor students. In fact, it happens all the time. It just does not happen often enough in Indiana.

A large part of school performance has nothing to do with poverty. Huge numbers of poor and working-class parents do not expect their children to fail. In too many cases, however, the education establishment expects them to fail. It writes off poor children because it can get away with it. Indiana's public education establishment does not pay the costs of its failure to teach disadvantaged children. The children and their parents pay for it, along with the rest of Indiana.

## The Myths of Indiana's Education Geography

When school districts across the state were consolidated in the 1950s and 1960s—as we have pointed out before—the result was a patchwork of district boundaries that often bore little resemblance to the real boundaries of communities. The contrast between community and school community definitions occurs in two ways. On the one hand, the school district often is too large. In the rural parts of our state, children often attend middle school and high school dozens of miles from their elementary school. Entire towns

***School system policies that aggravate the process of separation — rich from poor, race from race — while gutting our city centers, are hardly the engines of social progress that their defenders often describe them to be.***

***Indiana's continued reliance on the state's school-district boundary definitions is doing harm.***

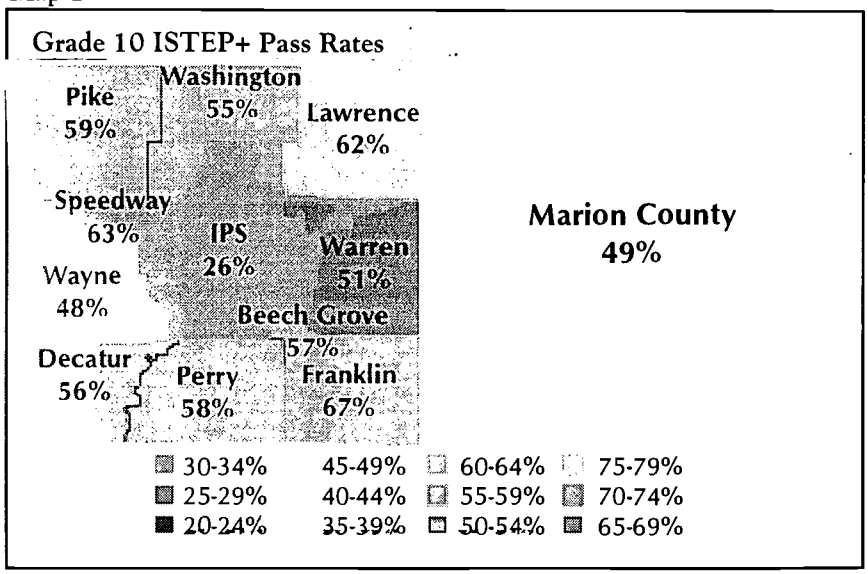
***Realtors advertise where a neighborhood's children go to school. Parents with the most money pay the highest home prices to send their children to what they perceive to be the best school districts. Parents with less money settle for districts with lesser reputations. Parents with little or no money have no choice whatsoever.***

that once had a K-12 system of their own can no longer claim a basketball team or a student who won an essay contest. As distance increased, school affinity and pride diminished. Marching Band practice often takes place in another town now, or at a school that is not part of any town at all. In this way school consolidation has had a very negative impact on the civic culture and identity of Indiana's small communities.

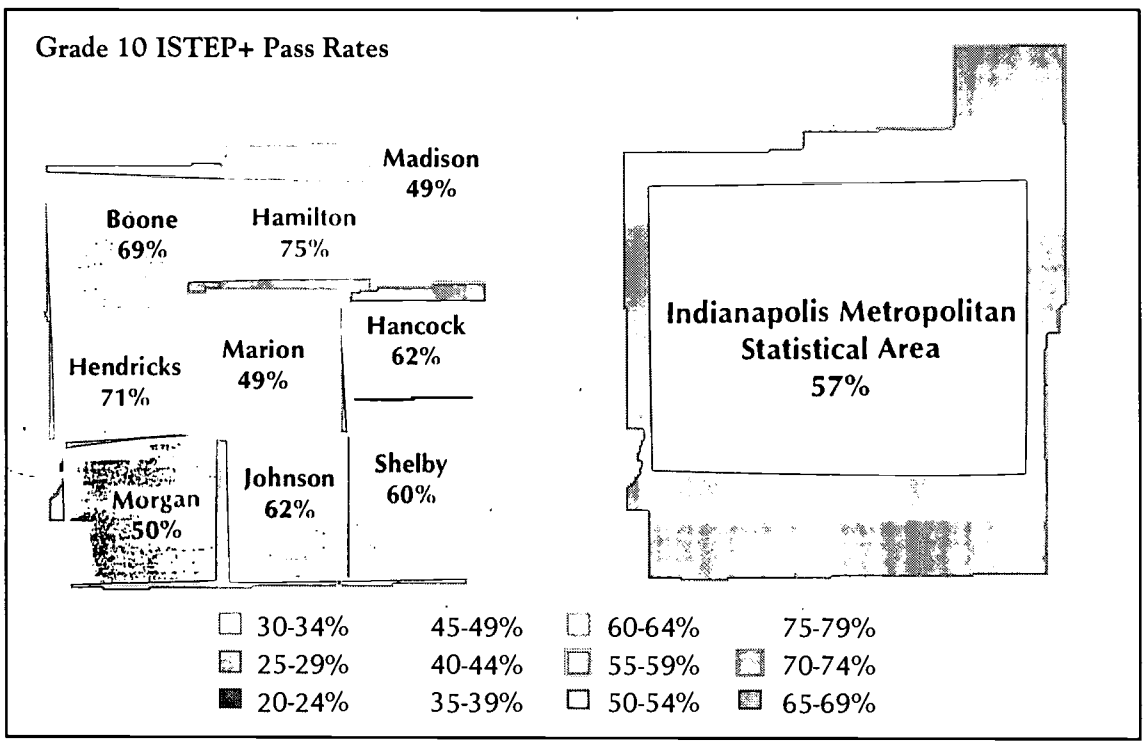
In another sense, however, a school district is a ridiculously small entity. It certainly does not reflect the workforce geography into which its graduates will venture. In South Bend, for instance, increasing the skills of tomorrow's workforce is not simply a matter of fine-tuning one school district. The economy of the greater South Bend area, or Michiana, includes St. Joseph, Elkhart, Marshall, LaPorte, and Starke counties, not to mention Berrien and Cass counties in Michigan. Training tomorrow's Michiana workforce involves dozens of school districts. So does creating good citizens or culturally literate graduates. One school district is a drop in the bucket.

This is not an argument for a massive re-drawing of school-district boundaries and certainly not for another round of school consolidation. On the contrary, this is an illustration of how meaningless centrally planned school-district boundaries are, in view of the much smaller scale of civic communities and the much larger scale of today's economic communities. Eighty years ago, a school district made more sense. Towns were often dominated by a few large manufacturing concerns and by regional agriculture production. A community school district's graduates were in fact the entering workforce of the town; they were more or less the sum total of new voters, neighbors, and workers. This is no longer true.

Map 1



Map 2

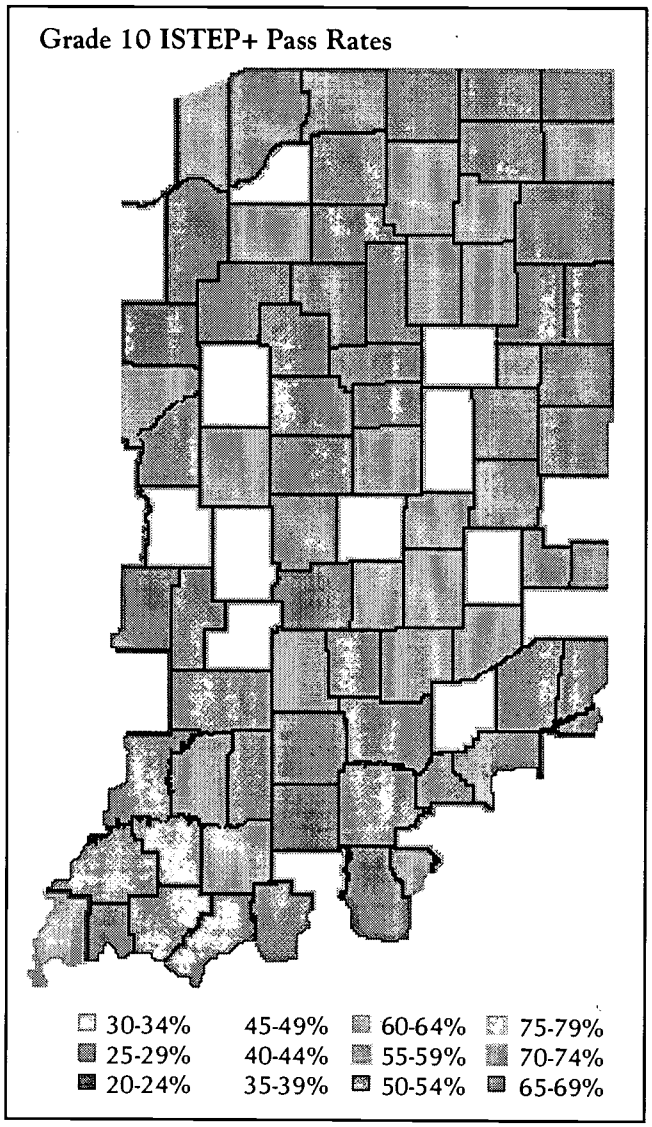



Indiana's continued reliance on the state's school-district boundary definitions is doing harm. Consolidation created real barriers between schools, parents, and communities in many rural areas. And in urban areas, suburban flight (or "white flight") also has been driven in part by artificial school district boundaries. Consider Indianapolis. The central school district, Indianapolis Public Schools (IPS), has been losing students for years to the outer city and surrounding suburbs. Realtors advertise where a neighborhood's children go to school. Parents with the most money pay the highest home prices to send their children to what they perceive to be the best school districts. Parents with less money settle for districts with lesser reputations. Parents with little or no money have no choice whatsoever.

***School-district dynamics in Indiana give rise to a mindset of not being the worst rather than to a mindset of being the best.***

School system policies that aggravate the process of separation—rich from poor, race from race—while gutting our city centers, are hardly the engines of social progress that their defenders often describe them to be. What's more, current approaches to public education in Indiana confuse our definitions of success and failure. The rational response of parents today, if they have the financial means, is to move to a place where the local school district gets *relatively* better results. The issue for these parents is not whether a particular

Map 3




school district is the best that it could be—based, for example, on what percentage of its students are recruited by local companies or go on to top-tier colleges. The issue is simply whether a school district is better than the school district down the street. School-district dynamics in Indiana give rise to a mindset of not being the worst rather than to a mindset of being the best. It would be far better if parents felt empowered to improve the schools in their own neighborhoods, or if parents could choose between publicly funded schools regardless of their residence. Instead, they feel compelled to move to a part of their town or their state where the schools are "not as bad."

From the standpoint of Indiana's common cultural and economic destiny, the performance distinctions between school districts offer no comfort whatsoever. An individual family with sufficient income may be able to shield its children from the worst effects of a mediocre education system. Business leaders, and others whose concerns extend more broadly, can find no such shelter. Isolation is an illusion.

The problems of IPS in the inner city belong to all of Marion County, to all of the greater Indianapolis area, and to the whole state. Maps 1 and 2 illustrate the spillover effects. Map 1 presents Marion County school district performance on the 10th grade ISTEP+ in the conventional manner, district by district. Map 2 shows how low scores effect the entire Indianapolis Metropolitan Statistical Area. In districts like Speedway and Franklin, at least two-thirds of sophomores passed the ISTEP+. However, when weaker districts are factored in to the equation, the result is that less than half of Marion County's sophomores passed the exam. Consider performance in the entire Indianapolis Metropolitan Statistical Area, or Indianapolis MSA. (XVI) The North-

[XVI] Metropolitan Statistical Areas are locales defined by the U.S. Government. They are an attempt to describe a more or less distinct political and economic geography. The Indianapolis MSA consists of Boone, Hamilton, Hancock, Hendricks, Johnson, Madison, Marion, Morgan and Shelby counties.

Northwest corridor's students perform relatively well. Marion and Madison counties' students perform relatively poorly. Yet, since each county is part of a larger whole—a whole workforce, a whole community, and a whole voting public—the success of Hamilton or Hendricks counties is less a cause for cheer than the failure in Marion and Madison counties is a cause for more concern. The failure rates in Marion and Madison counties pull down the MSA average to a rate lower than the rate in six of the nine counties. To the north, West Lafayette School Corporation saw almost 90% of its sophomores pass the ISTEP+ in 1998. Yet, the failures of other Tippecanoe County school districts brought the entire county's pass rate down to 39.8%, one of the lowest rates in the entire state.[31]

Every child lost to failure in IPS or in another weak school district is one more person who never will be able to take a well-paid high-tech job in Indiana. Every child lost to failure in a weak school district is one more person who may end up drawing on public coffers rather than contributing to them, thereby driving up taxes and making the entire state less attractive. Every child lost to failure in a weak school district is one more reason for a local firm to expand elsewhere in the nation or for an outside company to avoid Indiana in its location decisions. *The isolation of poor performance in education is an illusion.*

The arbitrary nature of school district boundaries has created pockets of failure and relative success throughout the state. Map 3 shows county-by-county ISTEP+ 10th grade passing rates. It demonstrates that counties with similar geography and similar economies have very different pass/fail rates, strongly suggesting that the most serious problems are inside schools, not inside families or communities. The results of suburban flight—the quest for a school district that is "not as bad"—are readily apparent on Map 3. In Ft. Wayne, flight has occurred mostly to the city's south. In Indianapolis, it has been to the north and northwest, while in Evansville migration has run to the east and northeast. The suburban-flight areas have passing rates of 65% or more, while the cities adjacent to them do much more poorly.[32]

When the system is set up such that a concerned parent's best response is to move to a wealthier area, it should come as no surprise that poverty is becoming more concentrated in our poorest school districts. In 1979, the average school district had a per capita income of $6,880. Among school districts below the mean of $6,880, 75% saw their per capita income fall to a statistically significant degree by 1989. (XVII) Among school districts with per capita incomes above the mean of $6,880, only 28% saw a significant drop in income levels ten years later. The same dynamic repeated itself in the 1990s. Though per capita income is not yet available from the Census

***When the system is set up such that a concerned parent's best response is to move to a wealthier area, it should come as no surprise that poverty is becoming more concentrated in our poorest school districts.***

[xvii] In all cases here, statistical significance was determined at a 95% level of confidence.

Bureau, free and reduced lunch rates are available. Five hundred seventy-three schools had an assisted lunch rate above the state mean in 1988. By 1999, 51% of them had seen their free and reduced lunch rate increase at a statistically significant level. Among schools with a free and reduced lunch rate below the state mean in 1988—the wealthier schools—only 28% saw their free and reduced lunch rate increase.[33]

Without a radical change in the organization and delivery of education in Indiana, we risk a self-fulfilling prophecy in which wealth and poverty become the chief determinants of success in school. Such a system runs completely counter to the original purpose of the common school, in which the relationship between current circumstances and future opportunity was to be minimized. Poverty is not destiny, unless we make it so.

## In Summary: The Real Problems are Inside the Schools, Not Outside

Table 4

**Statistical Significance of various "Inputs" On School Performance.**

| | SAT | Grad. Rate | Passing ISTEP+ |
|---|---|---|---|
| *Significant?* | | | |
| Enrollment | No | No | Yes |
| Locale | No | No | No |
| Spending | No | No | No |
| Teacher Experience | No | No | No |
| Teacher Salary | Yes | No | No |
| Pupils per teacher | No | No | No |
| *Percent of Variability Explained* | | | |
| Enrollment | -0.3% | 1.4% | 5.2% |
| Locale | 1.1% | 0.3% | -0.3% |
| Spending | 0.1% | -0.3% | -0.3% |
| Teacher Experience | 0.1% | -0.3% | 0.1% |
| Teacher Salary | 2.6% | 0.0% | 1.2% |
| Pupils per teacher | 0.1% | -0.2% | 0.9% |

Source: Indiana Department of Education
Hudson Institute

At the risk of descending rather deeply into the world of numbers, we hope to bring home the key finding of this report. Defenders of Indiana's status quo in public education invariably focus on "inputs" as being the problem: insufficient per-pupil expenditures, low teacher salaries, large class sizes, low expenditures, etc. In truth, none of these factors adequately explains the few examples of success and the many examples of failure in Indiana's public schools.

To see just how difficult it is to find a magic bullet that explains away all success and failure, look at Table 4. The relationship between district-level "outcomes" (SAT scores,

graduation rates, and ISTEP+ passing rates) and a variety of education "inputs" is shown. The first portion of the chart shows whether each input is a statistically significant indicator of the particular outcome. (XVIII) Many of the inputs that we take for granted as keys to improvement show no real impact at all, including per pupil spending, pupil to teacher ratios, and teacher salaries.

***Many of the inputs that we take for granted as keys to improvement show no real impact at all, including per pupil spending, pupil to teacher ratios, and teacher salaries.***

Money is not the real problem. We have shown that Indiana taxpayers spend generously on public education. Parents and poverty are not the real problems. Students can, and do, overcome very difficult circumstances to succeed in school. None of the old scapegoats, the "inputs," are the problem. The problem is inside our system of public education.

The time is long past for marginal changes. Indiana can no longer afford to experiment with the latest pedagogical fashions. We can no longer hope that additional spending or school incentive awards or class size reduction or any other reform within the system will make a difference. The problem is the system itself: the education monopoly, the random administrative boundaries, the distant and anonymous bureaucratic control, the powerlessness of parents, and the alienation of students in assembly line schools. Improvement will come only when we change that system.

We do not have any time to waste—nor one more child's future to compromise—on fault-finding or finger-pointing. The time is now to call upon the collective wisdom of Indiana's citizens to make wholesale changes in our our systems of education. The stakes could not be higher, nor the potential reward greater.

[xviii] Statistical significance is tested at a 95% level of confidence.

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